

Amendment, GAU 3763, Ser. No. 09/821,451

REMARKS

Claims 1 and 3-6 were pending in this application, of which claim 6 is canceled and claim 1 is amended. The amendment is supported in the drawing. Thus, claims 1 and 3-5 stand for consideration in this application. In response to the official action:

Claims 1 and 3-6 are rejected under 35 U.S.C. §102 as being anticipated by Riitano (U.S. Patent 6,079,979).

Claim 1 is amended for clarity, and now recites a "bended portion" between the mounting portion and the discharging portion. This feature was already inherent in the recitation, "a discharging portion which extends bending at a predetermined angle from this mounting portion." Therefore no new issue is raised, and entry is proper.

According to claim 1, the nozzle includes a mounting portion on the proximal side of its bent portion, and a discharging portion on the distal side of the bent portion; and is tapered on the distal side of the bent portion.

On the other hand, Riitano in Fig. 3 discloses an internally tapered *mounting* portion, on the proximal side of the bend, while the part that is distal the bend is completely straight; with respect, is not at all tapered. That is, the tapered portion of Riitano does not correspond to the Applicants' claimed discharging portion but instead to the claimed mounting portion.

The Examiner is invited to take a straight-edge to Fig. 3 of Riitano, draw pencil marks on it, and see that the portion distal the bend is not tapered in the slightest. As the portion distal the bend is completely lacking in taper, Riitano does not anticipate.

The claim language prior to the now-requested amendment, "a discharging portion which extends bending at a predetermined angle from this mounting portion," that was mentioned above, clearly distinguishes from Riitano because in Riitano the tapered mounting portion does

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not "extend ... at a predetermined angle" from itself. Therefore, allowance is requested even in the event that this amendment is refused entry.

The Applicants previously noted (Amendment of July 31, 2001, pp. 3-4) that Riitano not only fails to disclose a tapered portion distal the bend, Riitano also *teaches against tapering* because it teaches a need for its "distal stop end 44" that "acts ... to prevent penetration into root canal ... beyond the length of the cannula" (lines 54-59 of col. 3, as noted in the July 31 Amendment) and also teaches that "The stop prevents apical perforation since only the portion of cannula 60 extending from the stop can be inserted into the root canal, whereas a face with a *tapered* configuration would slide into pulp cavity 46, thereby allowing perforation" (spanning cols. 6-7, also previously noted; emphasis added).

Riitano's syringe is not intended for periodontal application, as is the Applicants' claimed syringe, and the Applicants have no need for the stop disclosed by Riitano.

The Examiner asserts that the threads of claim 3 are anticipated by Discko at col. 5, lines 19-22, but, with respect, that text has no apparent connection with the subject matter of claim 3. Similarly, the cited text is also respectfully seen to irrelevant to claim 4-6. Clarification is requested.

Claims 1 and 3-6 are rejected under 35 U.S.C. §102 as being anticipated by Discko, Jr. (U.S. Patent 5,267,859).

The Examiner states that Discko discloses a barrel 16 provided with a mounting portion at a distal end, and a plunger 20 that includes a gasket capable of sliding hermetically along an inner wall of the barrel; and a nozzle 40, 32 which is freely detachable and has a tapered discharging portion 32.

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Discko discloses that a dental material M is filled into a body portion (30, 230, 330) of a cartridge 12; a piston (28, 228, 328) is inserted into an open end (42, 242, 342) of the cartridge; a rear flange (26, 226, 326) of the cartridge is inserted into a breach opening 18 of an end of the barrel 16, as shown in Fig. 1; the piston is advanced by a plunger tip (22, 222) of the plunger 20; and the material M is squeezed out (col. 3, lines 12-16; col. 4, lines 53-55; and col. 5, lines 3-5).

The dental material M is not filled in the barrel. Accordingly, there is no need for the plunger 20 to slide hermetically and, in fact, there is no description of any such a feature in Discko. Indeed, it would be pointless to make the inner wall of *barrel* hermetically slidable, and Discko makes no such suggestion. Only in the *cartridge* would this make sense.¹ The plunger cannot be adapted to hermetic sliding.²

The Examiner states that Discko discloses a luer lock and threads in Fig. 1 (referring to instant claims 3-5). But Discko discloses no luer lock, but instead discloses a cartridge fitted to a breach opening.³ Since the material M is only filled in the cartridge 12 and not in the barrel 16, it would be pointless to provide a pressure-sealing luer lock.

It is noted that the nozzle portion 32 is not "freely detachable with said nozzle mounting portion," only the cartridge 12 as a whole is detachable.

¹ "In use, the dentist places the dental material M in the open end of cartridge 12," writes Discko at col. 4, line 19. Discko then continues at line 25, "the dentist places a plug or piston 28 sealing the open end 22." The piston 28 is shown through a cut-away in Fig. 2; the "open end 22" should read "open end 42," see col. 3, lines 15 and 59.

² The plunger tip 22, which comprises much or all of the length of the plunger 20 that could be inserted, is tapered and does not appear to be adapted for sealing, while the cylindrical part of the plunger 20 is too large in diameter to fit inside the cartridge 12; Fig. 1 shows that the outside diameter of the plunger 20 is at least as great as the outside diameter of the cartridge 12, which must of course be greater than the inside diameter of the cartridge 12. Conversely, Figs. 4-5 show that the plunger tip is too small in diameter to slide hermetically. These figures show that the piston is pushed by the plunger tip 22 or 222. The action of tip 222 is described at col. 4, line 53: "The piston 242 is advanced by plunger tip 222 to extrude the material."

³ The rear flange 26 of the cartridge 12 locks it to the gun or syringe 10, shown in Fig. 1. The syringe 10 is worked "so that the plunger tip 22 forces the material contained within cartridge 22 out of the nozzle 32" (col. 3, line 14).

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In view of the aforementioned amendments and accompanying remarks, the claims are believed to be in condition for allowance. Withdrawal of the rejection and allowance of all claims is requested.

Attached hereto is a marked-up version of the changes made by the current amendment. The attached page is captioned, "VERSION WITH MARKINGS TO SHOW CHANGES MADE".

In the event this paper is not timely filed, then this paper is a petition for an appropriate extension of time. The fees for such an extension or any other fees which may be due with respect to this paper may be charged to Deposit Account No. 01-2340. Favorable consideration and allowance are respectfully solicited.

Respectfully submitted,

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Attachments: Version With Markings to Show Changes, Certificate of Facsimile Transmission

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VERSION OF CLAIMS WITH MARKINGS TO SHOW CHANGES

1. (Twice Amended) A drug syringe comprising:
a barrel which is provided with a nozzle mounting portion at a distal end thereof;
a plunger which is provided with a gasket capable of sliding hermetically along an inner wall of the barrel at a distal end thereof and inserted from a proximal end of said barrel; and
a nozzle which is freely detachable with said nozzle mounting portion, [wherein] said nozzle [includes] including a mounting portion on the proximal end side which is provided with means for mounting to said nozzle mounting portion and a discharging portion which extends bending at a predetermined angle from this mounting portion, [said discharging portion being formed so as to become thinner at a tip thereof in a tapered shape.] *new*
wherein said discharging portion located at a distal end side of a bended portion of said nozzle is formed so as to become thinner at a tip thereof in a tapered shape.

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 306-4520) on February 20, 2003.

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Signature

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